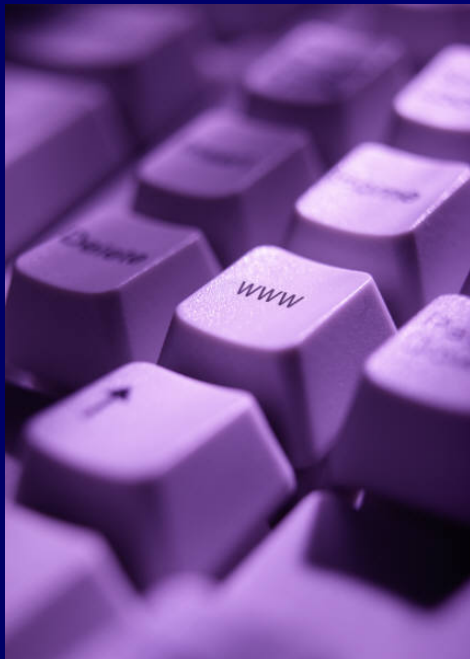


# Non-Traditional Broadband Transmission: BPL (Broadband over Power Lines)

Presented by Greg McKelfresh  
July 26, 2007



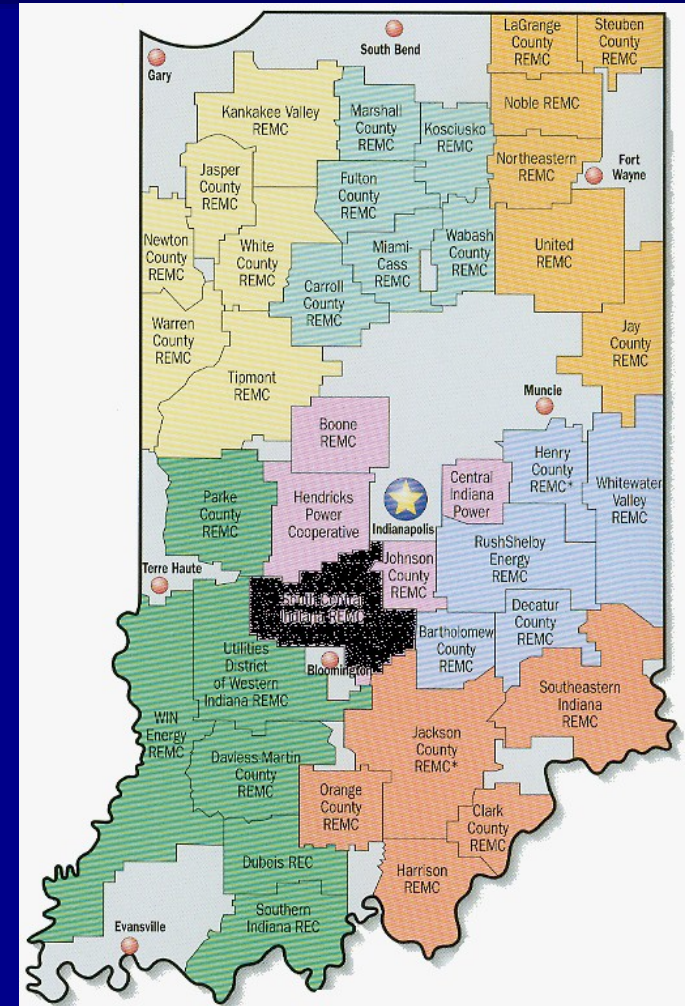
# Topics to be Covered

- Overview of SCI REMC's BPL pilot project
- Enhanced features of Generation 2
- What's next?
- The utility rewards of providing BPL

**Overview of SCI  
REMC's BPL Pilot  
Project  
(Broadband over Power Lines)**

# South Central Indiana REMC

- Serves 33,400 households in 7 counties
- 815 square miles
- Density – 9.7 customers per mile of line
- Founded in 1939

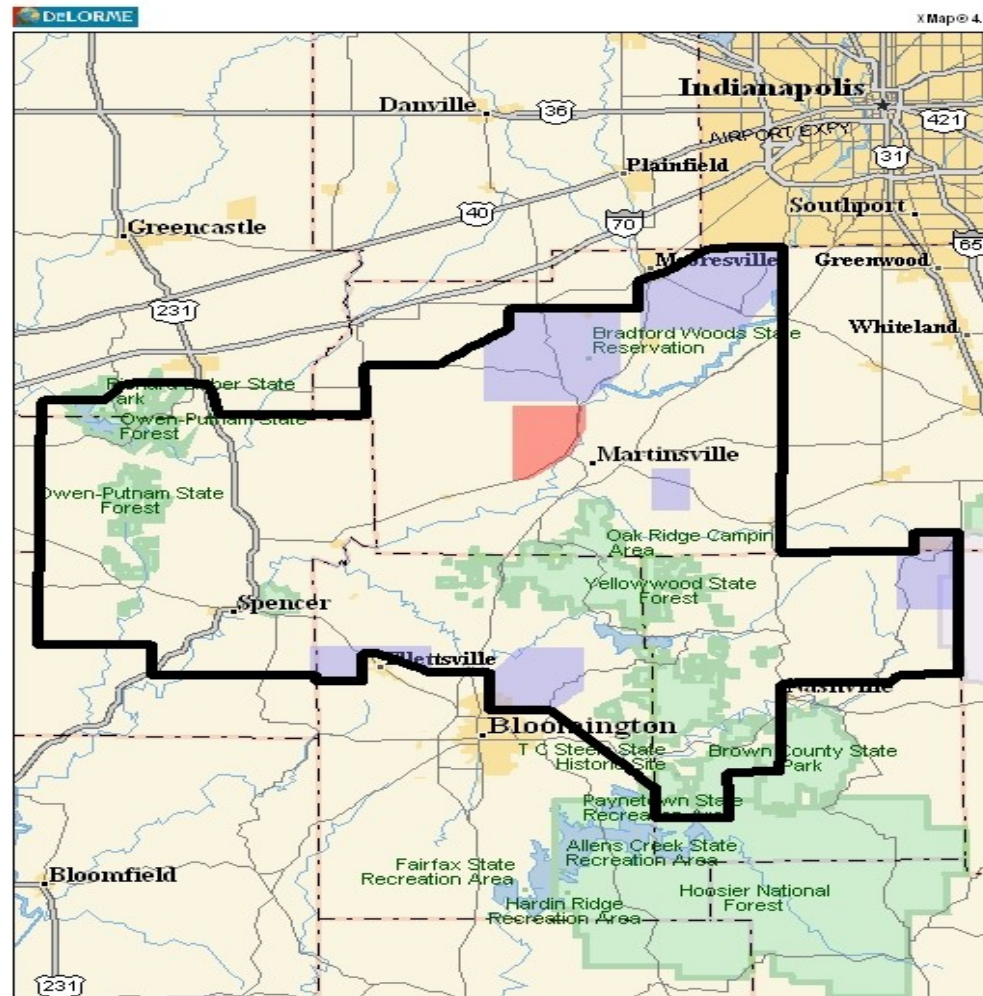


# Why did SCI REMC consider BPL?

- Spur economic development in rural areas
- No meaningful competition
- 90-95% of our members have no broadband available to them
- 26% of our members surveyed said SCI should provide broadband service
- Opportunity to provide a “value-added” service
- Long-term member loyalty



# SCI REMC Pilot Area (in red) (Martinsville Substation)



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[www.delorme.com](http://www.delorme.com)

MN (3.5° W)

0 2 4 6 8 10 12 mi  
Data Zoom 8-0

# SCI REMC's Pilot Project (Timeline)

- Deployment began end of January, 2005
- BPL Pilot passes approximately 700 consumers over 59 miles of line
- As of July, 2005, we had 150 customers using the BPL service
  - 21% subscription rate (take rate)
- As of July, 2006, we still had 134 customers using BPL

# SCI REMC's Pilot Project (Timeline)

- In July, 2006, we began changing out all of our Generation 1 equipment to Generation 2
- All equipment was changed out in 5 weeks
- By the end of April, 2007, we had everyone back in service
- Due to delays getting Generation 2 to work properly and the introduction of DSL in the area last summer, we now have about 100 BPL customers









# **Enhanced Features of Generation 2 Equipment**

# Enhanced Features of Generation 2

- Equipment can handle 8-10 times the bandwidth as Generation 1
- Remote management
- Automatic reboot after power loss
- Units better made – no problems with heat or moisture



**What's Next?**



# Future Plans for SCI's BPL

- By late summer, deploy BPL on the 2nd circuit on the Martinsville substation
- Evaluate the success of the deployment based on pre-defined criteria
- When we determine that we are ready to deploy BPL to our entire service area:
  - Equipment will be installed by contract crews over a 60 week period
  - Equipment will be financed using RUS Loan Funds (IBEC)



# Utility Rewards of Providing BPL to Rural America

# The Utility Rewards of Providing BPL to Rural America

- Utility network and system applications
  - Automatic meter reading
  - SCADA
  - Load balancing and substation management
  - Transformer, capacitor & recloser monitoring
  - Homeland security
  - Employee communications
- There is a great need for these utility applications in rural areas
- These utility rewards strengthen the rural business case for BPL

# Comment from a Rural BPL Customer

*“It’s the greatest thing since  
handles on wash tubs.”*

Mr. Grady Griffin  
Cullman EC Member